

## **Historic, archived document**

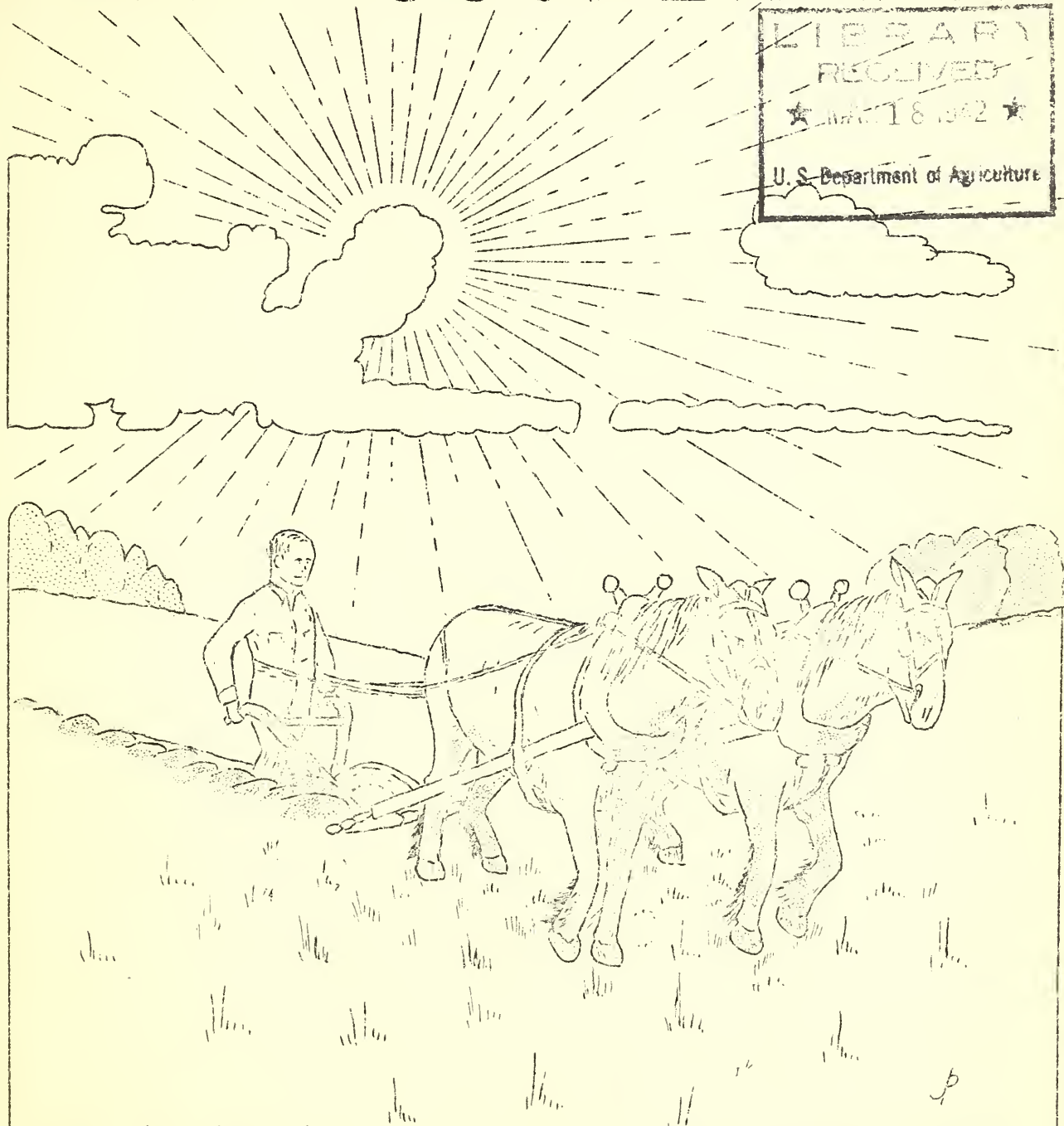
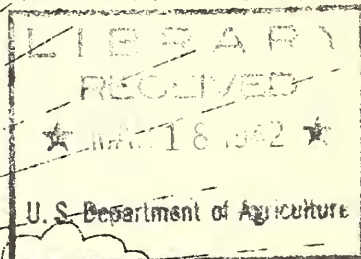
Do not assume content reflects current scientific knowledge, policies, or practices.



1.96

5039F

# *The* REEDY CREEK FARM COÖPERATOR



VOL. III No. 4

APRIL 1936

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE



# *The* REEDY CREEK FARM COOPERATOR

Published Monthly  
By  
Soil Conservation Service  
Department of Agriculture  
Spencer, West Virginia

Dr. A. L. Patrick, Regional Conservaotr  
Ivan C. Owens, Project Manager

George Sharpe, Editor

Contributions by SCS Staff

Volume III

April 1936

No. 4

## MOVE ON

It has been but a comparatively few years since a small band of Pilgrims landed in North America and said to the Red people, "Move on." Even though it was done grudgingly, the move was made, nor did it stop until this same continent had been crossed to its westernmost boundary. It was the march of a new civilization! It was the birth of a republic hewn from a mighty wilderness!

That move westward has continued almost to the present. Only a generation back it was possible for a family to leave the homestead when it became unproductive from misuse and erosion, and 'move on' to some new locality where the land was fertile and erosion was unknown. Not until recent years has this problem been considered by the American farmer. Now he is becoming acutely aware of his situation and of the loss in productivity of the land.

In one respect, conditions today are similar to those early pioneer days. One hundred and forty million people are still saying, "Move on," only now there is no place to move. The American farmer must be content with the land he occupies, and only through the best practices of erosion control can he be contented. Let us, as a nation, guard our agricultural resources, lest some other people knock at our door and say, "MOVE ON!"

--- Ivan C. Owens, Project Manager

## FIRST WOODLOT MEETINGS SUCCESSFUL

Although weather conditions were unfavorable for two of the three woodlot demonstration meetings held on March 10th to 12th, inclusive, a fine turnout of farmers and friends marked the meetings as successful. Brief talks were given on the principles of woodlot management and wildlife by the State Extension Forester and members of the Soil Conservation Service staff. These talks were followed by a marking contest in which the participants judged a group of 25 trees as to whether or not they should be removed according to the principles outlined in the foregoing talks.

To add to the interest of the meetings, old-fashioned sawing and chopping contests were included on the programs. Prizes were donated by local merchants interested in the work.

Winners of the contests at the various meetings were as follows:

### SPENCER

Marking Contest .....	W. C. Bailey
Sawing Contest .....	Corder Mace & Bill Hall
Chopping Contest.....	Homer Reger

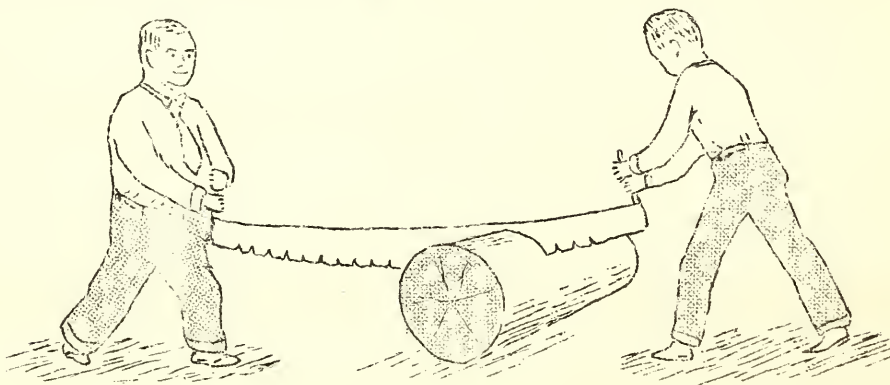
### ELIZABETH

Marking Contest .....	J. E. Ray
Sawing Contest .....	Roy Conley & Woodrow Twyman
Chopping Contest.....	H. T. Hupp

### RIPLEY

Marking Contest .....	Homer Parrish
Sawing Contest .....	C. A. Parrish & H. F. Harmon

The Soil Conservation Service is now planning to hold another series of meetings during late spring or early summer at which time it is hoped that an even larger group may get together and discuss this important phase of farming.





## LOOKING AHEAD

Due to an abundance of moisture, last year's growing season was a good one for hay production. As a consequence many cooperators in the Reedy Creek Area felt that they had a more than adequate supply of hay for winter feeding. A few cooperators even failed to harvest their last hay crop, or else harvested and sold some of it. Some of these farmers failed to reckon with the severe winter we have had, with its resultant heavy feeding requirements, and are now faced with the problem of buying hay or else disposing of some cattle.

There is no one who can definitely tell us what kind of growing season we will have this year. There are, however, ways of insuring against having to buy hay priced as high as \$20.00 per ton.

One way of insuring against having to buy hay is increasing the production of present meadows. Experiments in our own state have shown that a complete fertilizer with a relatively high percentage of nitrate usually will produce a greater yield of hay. For instance, on pastures, yields of grass have been increased several times by the application of two tons of limestone and 300 pounds of super phosphate per acre. A complete fertilizer, however, as a 6-10-4 is to be recommended under most conditions. Other experiments have shown striking increases from the application of nitrate alone on an old timothy meadow although the plots had received applications of 0-12-6 and 0-12-12 fertilizers the two previous years. In this case, on timothy meadows 100 pounds of nitrate increased the yield of hay 1,000 pounds per acre, and an application of 200 pounds of nitrate increased the yield to approximately 2,000 pounds.

What then, would be the cost of applying, say two tons of ground limestone and 200 pounds of a 6-10-4 fertilizer per acre on an old timothy meadow? At current prices the cost would be:

### COST

2 tons ground limestone .....	\$6.00
200 lbs. of 6-10-4 fertilizer .....	<u>3.50</u>

Total cost ..... \$9.50 per acre

If the production of hay was only increased 1,000 pounds per acre, the application would pay for itself in one year on the basis of \$19.00 per ton hay. Also, beneficial effects from the lime, phosphate and potash would be received for several years to come. Thus, we see that even on meadows requiring two ton applications of lime, it is a paying proposition to apply the lime together with fertilizer for increased hay production.

CROP ROTATIONS  
(Continued from last issue)

EXAMPLES OF CROP ROTATIONS

1. Corn - Wheat - Meadow - Meadow

This is a four year rotation which provides for a minimum of time when the land will be under a cultivated crop and open for severe erosion. That is, the ground will be plowed in the spring for corn and seeded to wheat and grass in the fall. Clover is to be seeded the following spring. Due to the fact that sod has been plowed under in this rotation, we would not expect the severe erosion as we would where the land contained no organic matter. Before this sod has had time to completely decay, we have it back in small grain and seeded to grass. This rotation also works fairly well on a livestock farm in providing a sufficient amount of desirable winter feeds.

2. Barley - Meadow - Meadow - Meadow

This is a four year rotation that can be made into either a three or five year rotation, depending upon the stand of grass and legumes secured and as to whether it is able to produce sufficient yields and maintain sufficient stand over the period of time desired. This rotation has been recommended on the project area on a large number of farms that do not have a sufficient amount of tillable land and it is necessary to grow additional feed to take care of the livestock which the pasture will support during the grazing season.

3. Corn - Wheat - Meadow

This is very similar to rotation #1 and is preferable to rotation #1 on lands that are sufficiently level so as to not have severe erosion from the use of cultivated crops and where there is sufficient lime available to secure heavy yields of legume hay.

4. Small Grain - Alfalfa - Alfalfa - Alfalfa

This rotation calls for seeding the Alfalfa in the spring with winter wheat or winter barley, or with spring oats when they are seeded. However it is probably better to seed Alfalfa alone the first half of August. This is a very good rotation on a livestock farm where the acreage of cropping land is limited and where the fertility of the soil is sufficient to insure the proper growth of Alfalfa.

There are many other rotations that can be worked out, the working out of which is a problem for each individual farmer. An effort has been made to mention some of the individual points to remember in working out crop rotation. Any crop rotation is better than none and we feel that the farmers on this project have made a tremendous start toward solving their problems through proper crop rotations.



## IMPROVEMENT OF SPRINGS

Livestock raising is a very important agricultural enterprise in this section of West Virginia. It is surprising how many prime beef were shipped from here last fall to the great shipping markets. West Virginia cattle compare favorably with those raised in states generally conceded to have the advantage in terrain.

Most farmers, when you discuss cattle problems with them, talk mostly of what their pastures are doing. They plan certain pasture improvement on this or that field together with rotation of livestock in order to keep up their grasses and keep their stock healthy. The problem of water is hardly ever mentioned.

Yet how important the item of adequate supply of good water really is can be determined only at a time when a water shortage appears. West Virginia with an average annual rainfall of around 43 inches, appears in no danger of water shortage. However, a careful study of rainfall records indicates that occasionally we have "off" years as in 1928, 1930, and 1934 when the rainfall was considerably below normal, especially in 1930. During that year the summer months were so dry that it was difficult to find sufficient water for cattle, sheep, and horses. Many springs dried up that had never before been known to go dry. But such a severe drouth is uncommon and should not govern entirely our policies. We are more interested in the average dry spells that are apt to appear every summer to cause temporary water shortage. Rainfall records extending for 30 years or longer indicate that our driest months occur in September, October, and November. Late summer and early fall, therefore, may cause us considerable trouble if we do not provide for them.

A few dollars and a few hours of labor spent on the improvement of existing water supplies and the development of new ones may mean a great saving during a time of need. Such improvements need not necessarily require a large outlay of cash where rocks, posts, and poles are available. A few sacks of cement, a barrel or tank, and several lengths of small pipe will usually be enough. Where a more expensive concrete job is desired the initial cost is greater, but a more permanent job is had that will be dependable for 20 or 30 years. The use of ordinary available materials will give a job that should last 10 or 12 years.

There is included with this article a drawing which indicates a possible method whereby the probable life of a spring-water supply may be prolonged and the use of which would aid materially in protecting springs during dry spells. It should be borne in mind that no definite rule can be made for construction, as each spring will be a separate problem due to slope, type of soil, location of rock strata, and amount of water available.

The following recommendations are made for rock structures where large expense is not involved:

1. The banks should be dug out far enough to determine the water source or outlet--approximately four feet. If possible the natural rock layer should be used for the spring basin. Rock masonry may be used to protect the sides of the spring.
2. Where there is danger of the soil caving in on the spring at the outlet, a rock wall should be included to protect it. If this is done a perforated iron pipe may be run through the wall and driven back into the water bearing strata to insure a more uniform supply of water.
3. It is always advisable to cover a spring in order to keep out undesirables. A concrete slab makes a very strong and durable cover. A large flat rock will serve the same purpose. If the expense of concrete makes such a cover prohibitive, it is possible to use wood covers with a fair degree of permanence. Locust, cedar, and chestnut are woods that should last a dozen years if properly used.
4. The structure should be covered over with soil and the disturbed area seeded to grass.
5. It is advisable to fence the spring from stock and allow them to drink from the tank only, which is placed some distance from the spring itself. Care should be taken that the overflow from the tank is discharged at a point far enough away from the tank to avoid a mud-hole being formed.
6. All pipes in danger of freezing should be buried or protected.
7. Wherever dynamite is resorted to for opening a spring it should be remembered that utmost caution must be used. Dynamiting frequently completely ruins springs for further use by scaling the water-bearing strata.

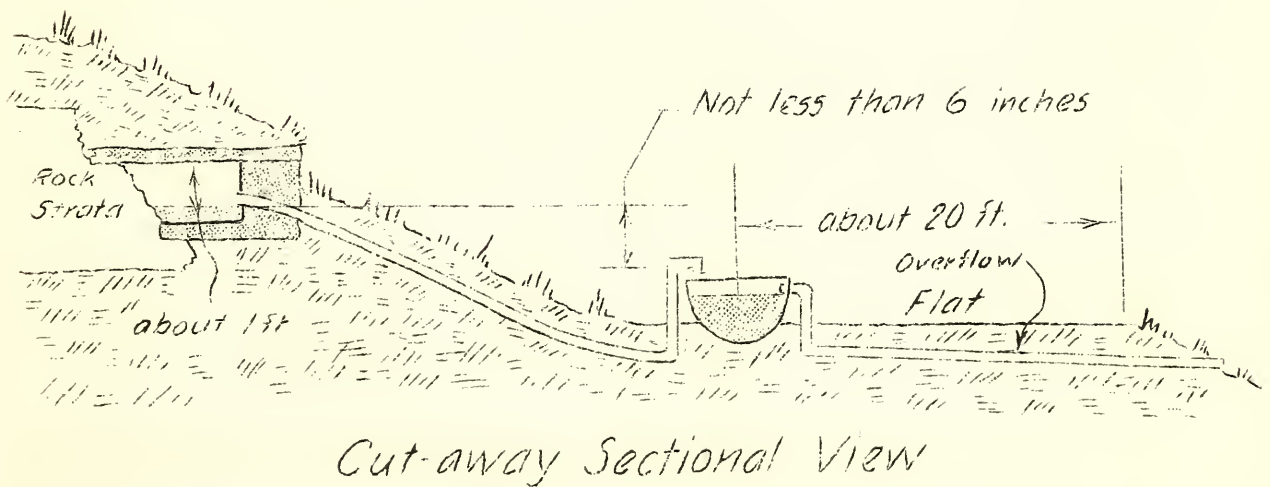
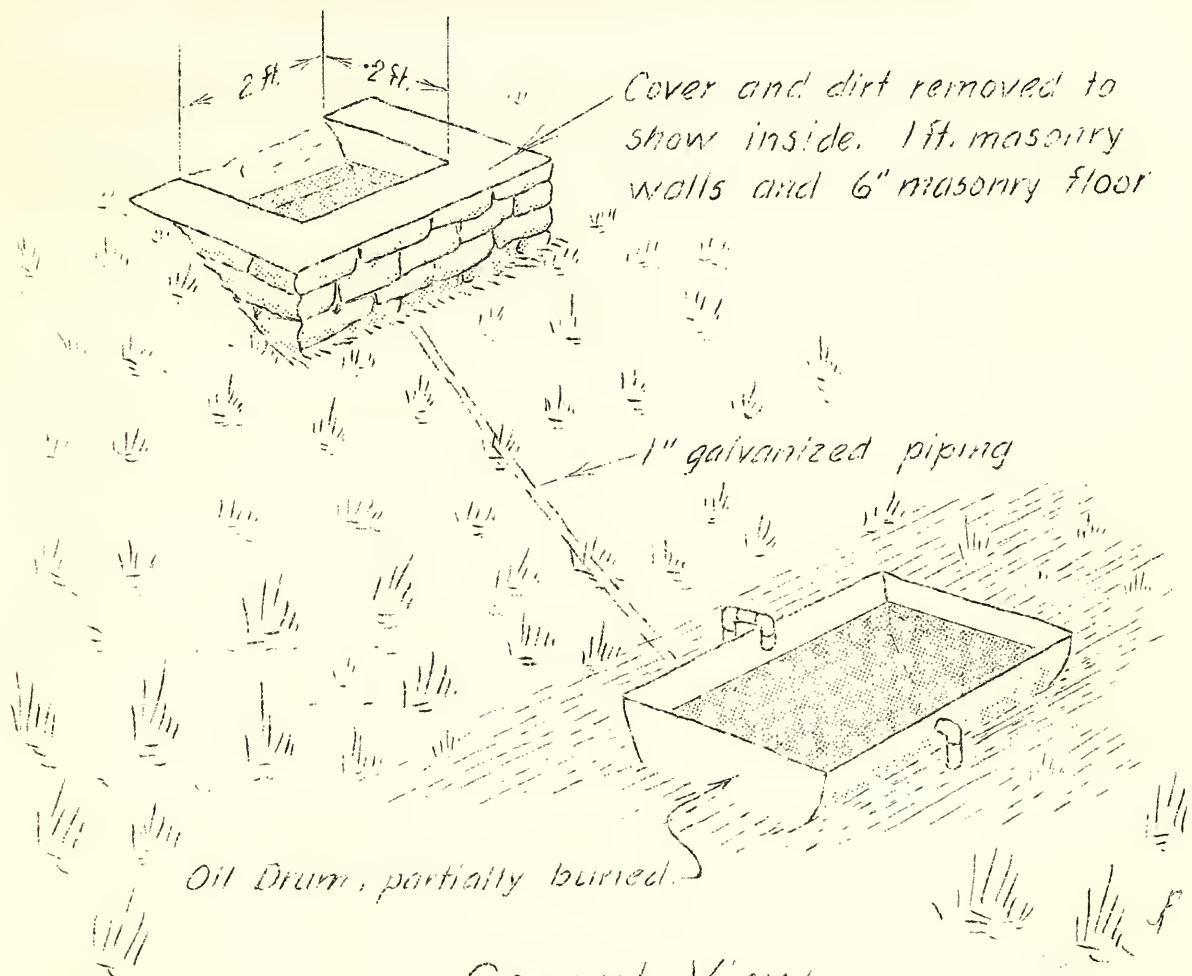
\* \* \* \* \*

All things come to him who waits;  
 But here's a rule that's slicker;  
 The man who goes for what he wants,  
 Will get it all the quicker.

\* \* \* \* \*

Happiness is the only goal.  
 The place to be happy is here.  
 The time to be happy is now.  
 The way to be happy is to make others so.

# SPRING IMPROVEMENT



## PREPARING A WILDLIFE FOOD SUPPLY FOR NEXT FALL

With spring and summer and its resultant abundant supply of wildlife food, rapidly approaching, we are quite likely to forget that there may be just as serious a food shortage next winter as was experienced in the winter just passed. It is, therefore, necessary that we plan immediately to provide an abundance of food for next winter. Feeding shelters that have been built may be considered as a step in the right direction. However, they must be considered only as emergency and auxiliary measures, and should be augmented wherever possible by natural plantings and food patches.

The best food, as well as that which is most acceptable, is that which nature provides. This consists of the fruit of native shrubs and plants, of which there is unfortunately a scarcity in this section. However, occasionally, there may be found a group of black haw, or thorn bush, or dogwood, containing a dozen or more plants. We can plan for the future by transplanting several plants from this group to some other part of the farm. This will eventually result in a more even distribution of food-bearing plants over the entire farm. It is unfortunate, however, that at least several years will be required before the supply of natural food will be materially increased.

In the meantime, grain patches are the most satisfactory means of increasing food supply. These may be established in any small, out-of-the-way corner, or unused portion of the farm. An excellent location is along the edge of the woodlot. There the grain will receive plenty of light to germinate and mature, and the cover and protection of the woodlot is quite close. Fence corners, fence rows, and additional otherwise useless bits of land will serve a valuable purpose if planted to food patches.

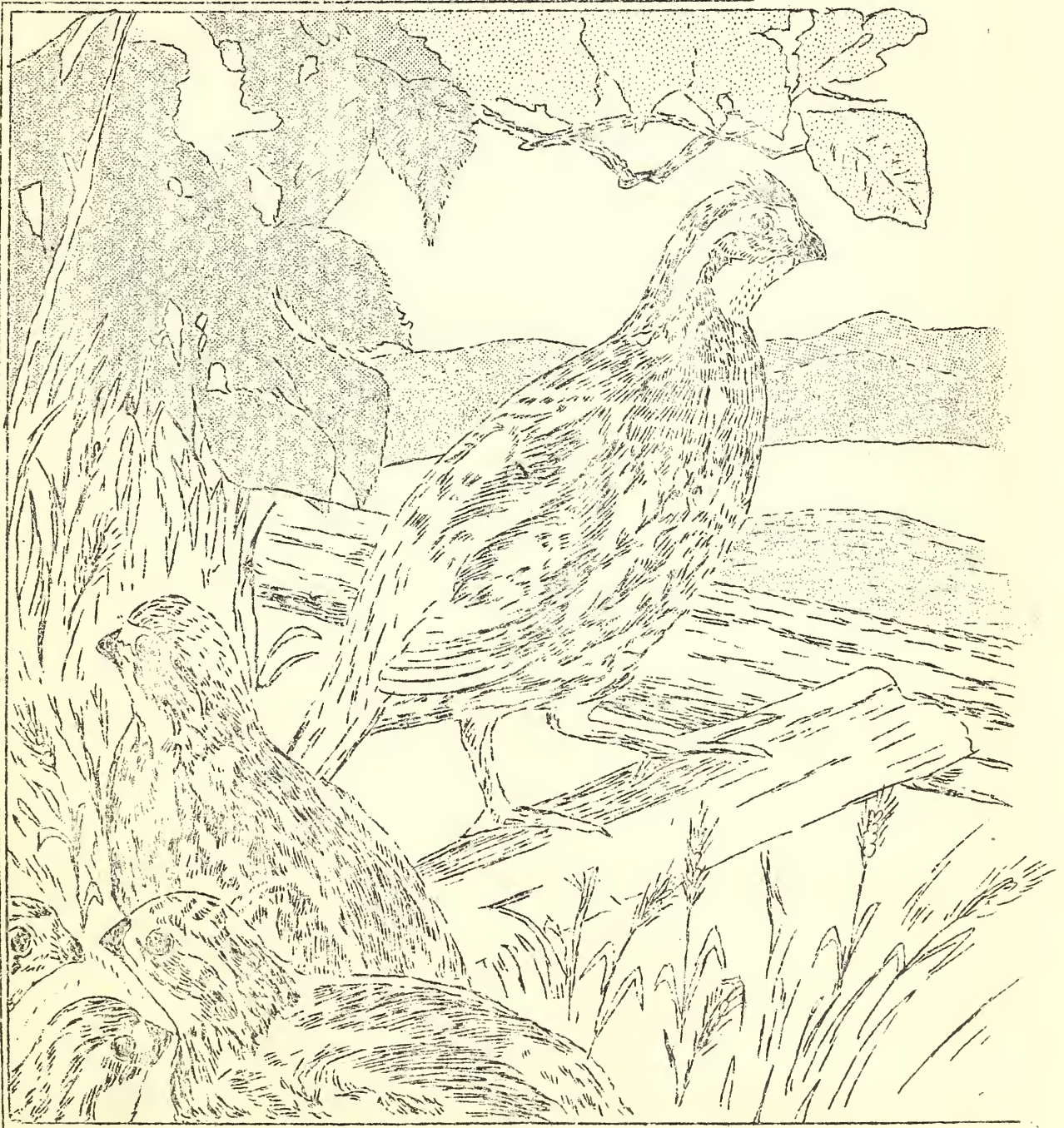
Establishment of the grain patch is quite simple. It is not necessary that the ground be plowed or given any sort of elaborate preparation. Mineral soil must, of course, be exposed, and this can be accomplished quite easily and satisfactorily with a rake. The seed may then be broadcast, raked in, and left to care for itself. The size of the grain patch is not important, although a number of scattered small patches will be much more effective than a single large patch. They may be composed of any grain or combination of grains. The following, however, are very highly recommended:

Kaffir Corn	1 lb	Flax	5 lb	Sudan Grass	3 lb
Common Sorghum	1 lb	Millot	3 lb	Soybeans	5 lb
Hemp	1 lb	Rape	1/2 lb	Lespedeza	5 lb
Spring Vetch	5 lb	Buckwheat	5 lb	Sunflower	1 lb

Best results will be obtained from seeding small patches of each one, or two or three seeded together.



It is known that a given area will support only a certain number of birds through the winter. This number is directly dependant on the amount of food and cover existing on the area. If we refrain from grazing our woodlots, there will be a fairly rapid increase in cover conditions, and a somewhat slower increase in food conditions. In the meantime, we can do much to increase the wildlife carrying capacity of our farms by the establishment of the grain patches described above.





FROM HERE AND THERE

\*\*\*\*\*

For Land Sake

Save Your Soil

\*\*\*\*\*

Forests really means life itself, for without them man cannot exist.

\*\*\*\*\*

Fire not only kills seedlings, saplings, and weakens full grown trees so that they become diseased or infested with insects, but also destroys food and shelter for our wildlife, as well as, killing many of our little friends.

\*\*\*\*\*

The wagon track of today may be the gully of tomorrow.

\*\*\*\*\*

You wouldn't let some stranger cut your timber off your land or haul off your hay. Why Let Erosion Steal Your Soil???

\*\*\*\*\*

Care must be taken to prevent over-grazing and pasturing while the ground is soft and wet.

\*\*\*\*\*

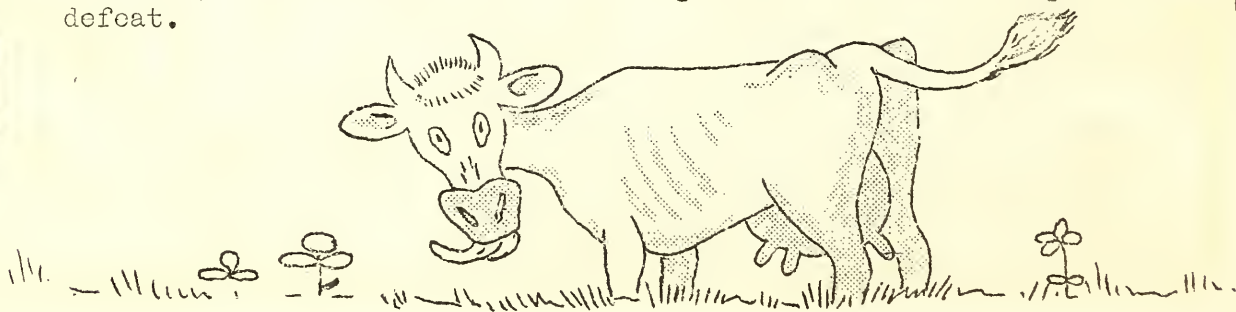
Strange as it seems erosion has caused streams to dry up, resulting in the disappearance of fish, animal and bird life.

\*\*\*\*\*

One hundred and twenty-five million acres in the United States have lost their best topsoil.

\*\*\*\*\*

The world wants the kind of men who do not shrink from temporary defeat in life; but come again and wrestle triumph from defeat.





### THE CHAINS FOR SUCCESSFUL CROP PRODUCTION

Fishing time is coming but the time is here to secure fertilizer for spring seedings.

None of us would admire the wisdom of the fisherman who would purchase a boat and all kind of fishing equipment and then refuse to go to the additional trouble or expense to secure bait. However, this is the same kind of wisdom displayed by the farmer who owns a farm, buys all kinds of necessary farming equipment, toils long and hard to prepare his seed bed and then neglects to supply the plant food necessary for proper plant growth. Just as the use of proper bait is a necessary link in the chain for successful fishing, so is the use of the proper amount and kind of fertilizer a necessary link in the chain for successful crop production. The drawing on this page shows what would happen if this all important link should be left out of the chain. The farmer's anchor to "financial independence" would be broken and the way opened for his drifting down stream toward destruction -- not only for himself, but destruction for his farm through soil erosion.

Without the use of fertilizer, a vicious circle is started. No fertilizer -- poor plant growth -- more soil erosion -- decreased yields -- lower incomes -- less and less ability to buy fertilizer to turn the tide. With the use of fertilizer, another circle is started. Fertilizer -- good plant growth -- less soil erosion -- increased yields -- higher incomes -- more and more ability to buy fertilizer to increase the good tide.

This article is not intended to minimize the importance of the other six links in the chain. As you can see from the drawing, the loss of any one of these links would bring about the same disastrous results for the farmer and his farm.

The value of fertilizer has been demonstrated on the farm of every cooperator. Results have been measured through increased yields of small grains and mixed hays, the successful growing of alfalfa and the improvement of pastures. The results will become even more visible over the next two years.

The Soil Conservation Service has attempted to help build "The Chains for Successful Crop Production". The question is -- "Are you going to strengthen every link in the chain and keep it in repair?"

Crop Rotation

Lime

Fertilizer

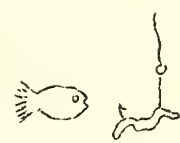
Certified Seed

Proper Culture

Legumes

Cover Crops

Financial Independence



## FIRE—DESTROYER OF SOIL

Of the many enemies of the soil none is more powerful than fire. Although this great force is man's servant in many cases, it is fast becoming man's destroyer. For the same flame which drives great locomotives or furnishes warmth from winter's cold, is also burning the forests and fields until they will ultimately become a desert waste if proper protection and control is not exercised.

Each year over 40 million acres are burned over in the United States. The greater part of this area is burned only lightly and on first appearance little damage seems to result. On closer examination, however, it is found that trees on this area are burned near the ground. These burns soon cause death of the surrounding plant tissue, resulting in ultimate cat faces and rot of the trees. Leaves, brush and small shrubs are killed and bare soil is exposed. This bare soil has little power to absorb rainfall and soon the land becomes subject to erosion. Growth on remaining old trees or new seedlings is reduced by this lack of water and nutrients, and many years must pass before the area is again built up to a productive state. Burning of pasture land is equally destructive. Many persons believe in burning off their broom sedge each year. This results in a greener appearance during early spring which on close examination is found to be nothing but more broom sedge. Blue grass and other desirable pasture grasses are killed by these fires and repeated burnings so deplete the soil that ultimately it supports no vegetation of any kind and erosion becomes active.

Our wild friends must also suffer from our neglect and careless burning. Many are burned to death at the time of the fire and the remainder must subsist on a depleted supply of food and insufficient cover.

Ninety percent of all fires are caused by man either willfully or through carelessness. It is the duty of every American citizen to reduce this great loss and stop this wasteful flow from our most valuable natural resource—OUR SOIL.

\*\*\*\*\*

### NOTICE

In case of fire on your farm or on adjoining land which gets beyond your control get in touch immediately with one of the following places:

Camp Crawford at Elizabeth (Bell phone)  
Camp Roane at Reedy (Bell phone)  
S. C. S. Office at Spencer (Bell & Citizens phones)

A dispatcher is always on duty at these places to help you with men and tools.



## MIXED FORESTS versus PURE FORESTS

In the artificial establishment of forests by planting, it has for countless generations been customary to establish pure stands. The majority of the older European forests are composed of large blocks of a single species. Various arguments have been used to justify pure stands. In the first place, if the forest is to be established by planting, it is far more simple to plant a solid mass of a single species than to break it up by planting several species. Solid plantations are easier to plan, and require less competent supervision. Sorting of various species is unnecessary when the final crop is harvested.

Unfortunately the objections to pure stands for the most part over-rule the advantages. The most prominent and serious objection has been discovered only during the last few years. Various European forests, particularly those composed of pure stands of spruce, appear to be declining as a result of serious soil deterioration. Soil studies indicate that, though various soil constituents are removed by tree growth, these same constituents are not being returned in quantities sufficiently large to maintain maximum productivity. Investigation discloses that leaf litter composed entirely of spruce needles has very little tendency to decay and return to the soil. On the other hand, a leaf litter composed of coniferous needles and deciduous leaves decomposes quite rapidly. It is therefore evident that, for the benefit of the soil itself, a mixed stand is to be recommended.

There are also other reasons for recommending mixed stands. Disease or insects attacking certain species will wipe out an entire forest if composed of a single susceptible species. Forest areas containing only one or two species will support a minimum of wildlife. An abundance of species is demanded if the area is to support a maximum amount of wildlife. An area composed of a number of species results in more effective erosion control, due to variety of root systems, types of growth, etc. The final timber crop will generally be more valuable because of the fact that the stand may satisfy a demand for several products instead of only one. A mixed leaf litter, because of the fact that it does not form such a solid mass, absorbs more moisture and is therefore more conducive to natural reproduction. Last of all is the fact that by far the majority of nature's own stands are of mixed species.

It would, however, be a serious mistake to assume that all pure stands are wrong. There are certain species that nature intends to be grown in pure or nearly pure stands. These species, due to some peculiarity of growth or habit, do not thrive in company with other species. The Black Locust may be included in this group. Its rapid growth makes it inadvisable to plant this tree with other species, of which there are few that can equal it in growth. In addition, the best means of protecting this species against the locust borer is to plant it in close, pure stands that will form an even crown canopy and produce plenty of shade.

Artificially, mixed plantings may be established by several methods. If the stand is to be a mixture of several species of conifers, adjoining rows may be of various species. It is also practical to plant several rows of the same species, and join these rows with several rows of an additional species.

The same methods may be used if the plantation is to consist of deciduous as well as coniferous trees. However, since variation in growth may prove detrimental to some species, it may be advisable to use a group method of planting. This consists of establishing adjacent groups, each group consisting of a single species. For all practical purposes these groups may be as much as several acres in extent.

Unfortunately, due to the fact that the desirability of mixed stands was given relatively little thought until recently, there has been very little experimental work carried out in an effort to secure information concerning them. Then, too, a scarcity of many species of planting stock prevented the carrying out of experiments. It is hoped that future supplies of planting stock will be sufficiently varied to permit the S.C.S. to carry out considerable experimental work along this line.





THE WORN-OUT FARM

Encompassed by a wilderness of briar and thorn,  
Its garden over-run by noisome weeds,  
The home round which glad children played  
Stands all a-wreck and Ruin claims it for its own.

The toppling chimney tells of home fires dead,  
The shattered pane, of light that failed,  
The unhinged door unto the broken hearthstone  
Now admits the ghosts of those forever gone.

Of cruel tragedy the ruin speaks,  
Of blighted hopes, of unrequited toil;  
And he who for the cause or reason seeks  
Needs but to ask the worn-out barren soil.

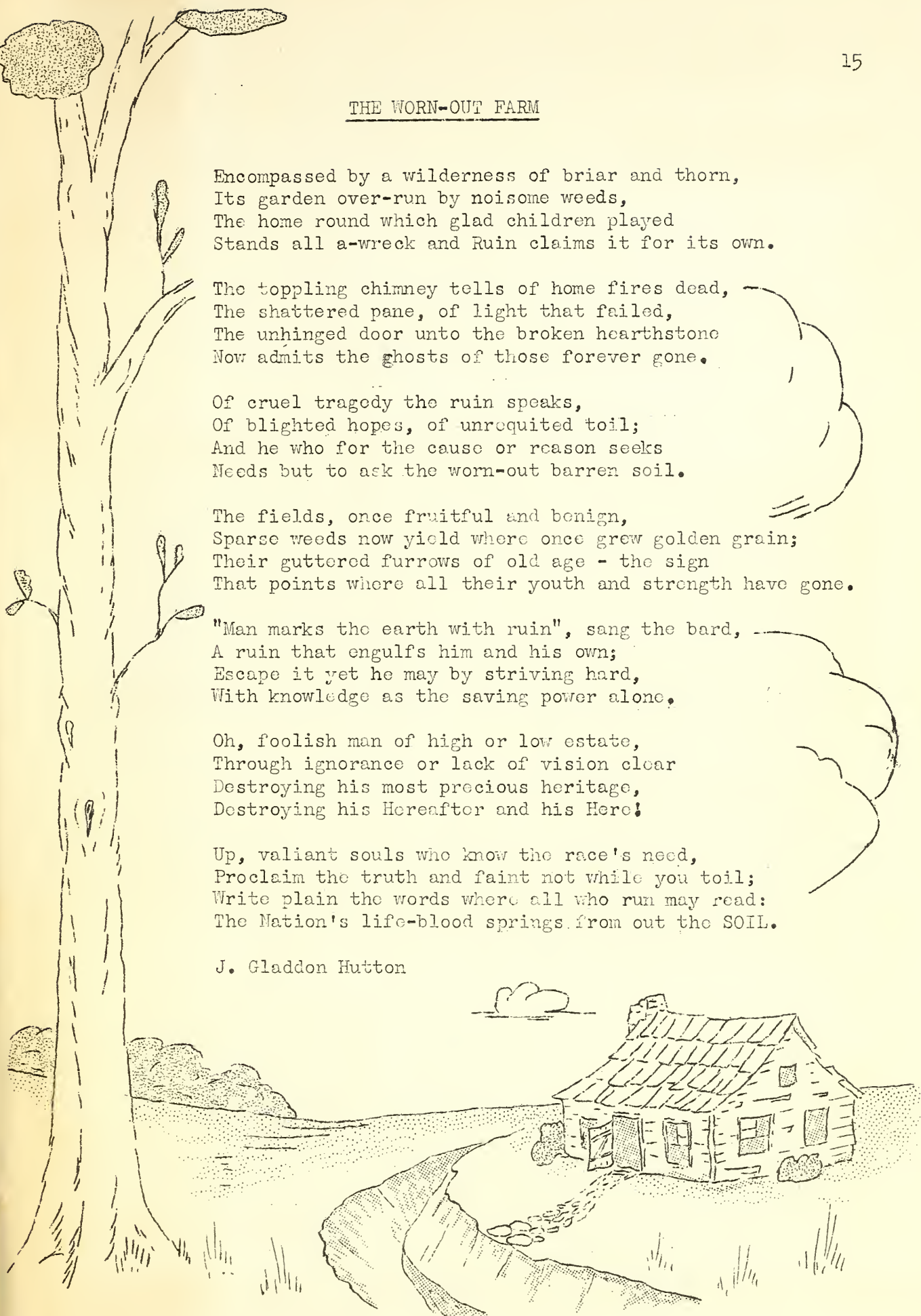
The fields, once fruitful and benign,  
Sparse weeds now yield where once grew golden grain;  
Their guttered furrows of old age - the sign  
That points where all their youth and strength have gone.

"Man marks the earth with ruin", sang the bard,  
A ruin that engulfs him and his own;  
Escape it yet he may by striving hard,  
With knowledge as the saving power alone.

Oh, foolish man of high or low estate,  
Through ignorance or lack of vision clear  
Destroying his most precious heritage,  
Destroying his Hereafter and his Here!

Up, valiant souls who know the race's need,  
Proclaim the truth and faint not while you toil;  
Write plain the words where all who run may read:  
The Nation's life-blood springs from out the SOIL.

J. Gladdon Hutton



U. S. DEPARTMENT OF AGRICULTURE  
Soil Conservation Service

Penalty for Private Use  
to avoid payment of  
Postage - \$300.00

Spencer, West Virginia  
OFFICIAL BUSINESS

